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NPIC/TSSG/DED-1423-68
12 November 1968

MEMORANDUM FOR THE RECORD:

SUBJECT: Complete System Design Capability of Corning Glass Works Electronic Research Laboratory

1. On 4 November 1968, during an inspection trip to Corning Glass Works Electronic Research Laboratory, Raleigh, North Carolina, (in conjunction with Project #99706-5, Improved Rear-Projection Screen), a courtesy demonstration of a recently completed computer terminal display system was given. This demonstration was given with the proviso that disclosure and discussion of this equipment be limited to government circles.

2. This system, designated by the code word [redacted] for purposes of industrial security, consisted of a unit measuring approximately three feet high by three feet deep by five feet long. Centered on top of this unit was an integral console, about three feet square, housing a rear projection display. This display was the terminus of an optical system having a cathode ray tube as its origin. Housed in the unit was a 3M hard copy reproduction device. 25X1

3. The purpose of the system was immediate visual display of vector diagrams and associated typed data from programs stored in a remotely located computer. This was effected by a question and answer routine with the operator furnishing his information via a typewriter keyboard. At any time during the visual readout on the rear projection screen, a hard copy reproduction of the displayed information could be made via the 3M printer. Instantaneous erase of the visual display could be initiated by the operator at any time. Resolution of the readout and hard copy material was adequate, although not exceptional. This, however, was attributed to the fact that the system had not, as yet, been "peaked".

? adequate for recon imagery, or for CRT display ?

4. Inspection of the mechanical and optical sections of this machine indicated a clean design and workmanship of the highest quality.

CRT

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5. The optical design and computer programming for ray tracing was a joint undertaking by [redacted] Research Manager, Electro-Optics, Corning Glass Works Electronic Research Laboratory, and [redacted] 25X1 25X1

6. For information, the [redacted] was one of the companies surveyed [redacted] as a possible vendor for the design of the optical system in the Ultra High Precision Stereo Comparator (re: Project #11037, Task 15: Optical Survey and Specifications, 25 June 1967, Pages 49 through 55 [redacted] holds). 25X1 25X1 25X1

7. It is the opinion of the writer that the Corning Glass Works Electronic Research Laboratory has demonstrated a capability for design and development of a complete optical system. Discrete query of [redacted] Director, Electronic Research Laboratory, elicited the response that this particular division of the Corning Glass Works would be interested in an R&D contract for a complete photo/optical system. 25X1 25X1

8. Since this division of the Corning Glass Works is presently engaged in the development of an Improved Rear Projection Screen and, as a result of this contract, is accumulating a background knowledge of rear projection devices, it is suggested that they might be a possible candidate for future rear projection R&D projects.

25X1

[redacted]
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